Panasonic

ideas for life

PT-**CW230** Series

Ultra-short Throw 1-Chip DLP™ Projectors

PT-**CW230**
PT-**CX200**

Ultra-short Throw 3D projectors make classes, seminars, events and exhibitions more impressive and effective.

NVIDIA 3D VISION READY

DLP 3D READY

PICTURE BY DLP™ A TEXAS INSTRUMENTS TECHNOLOGY

Innovative Ultra-short Throw 3D Ready Projectors With New Applications

New ultra-short throw projectors can project images onto a large 80-inch screen with a short projection distance of 0.32 m. These projectors can be installed either horizontally or vertically to meet various installation requirements.

The 3D projections make classes, seminars, events and exhibitions more impressive and effective, providing a wider range of uses.

PT-CW230 2500 lm WXGA

PT-CX200 2000 lm XGA

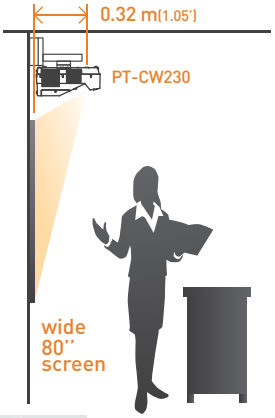
A Wide Variety of Functions Enables New Applications

Ultra-short Throw

Projection onto a wide 80-inch screen with a short projection distance of 0.32 m*1 Allowing four types of installation

Ultra-short throw projectors can be wall-mounted with a wall mount bracket (ET-PKC100W).

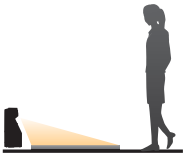
There is no need to worry about glare of the projection light and the presenter's shadow on the screen. The projectors can be installed either horizontally or vertically on a table, wall, ceiling or floor, to enable new uses and meet new installation requirements.



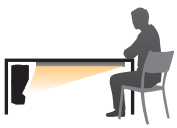
Wall mounted

Table mounted

Ceiling mounted



Floor mounted
(for floor projection)



Mounted under the table
(for table projection)

3D Ready

3D Projection Ensuring powerful images

The projector delivers 3D images. "The Frame Sequential Method"*2 displays stereoscopic images by synchronizing the projector with the 3D glasses*3. The combination of this system with the short-throw function enables space-saving 3D projection, helping you create innovative and attractive presentations.

* The above is an image only for explanation.The screens and photos illustrating the functions look different from the real things.

Wide Range of Applications Including Events, Exhibitions, Displays and Museums

Events with dramatic impact
3D projection onto a wall, floor, or ceiling makes your event more successful.

Exhibitions with promotional effects
Powerful large-screen 3D projection in limited booth space, enhancing the appeal of products and services.

Appealing displays
Short-throw, large screen (110 inch max.)*1 projection is effective for showroom/shopwindow display.

Highly realistic museums
Powerful 3D projection is real and appealing, increasing visitors' satisfaction.

Supporting Various 3D Systems

NVIDIA™ 3D Vision™

You can build the 3D system by using the configuration shown below. Enjoy vivid 3D worlds such as powerful high-definition games, digital photos, 3D Blu-ray Discs, streaming movies and videos.

Microsoft® Windows Vista®-/ Windows® 7-based computer + Compatible NVIDIA™ graphic card + NVIDIA™ 3D Vision™ kit + PT-CW230/CX200

DLP™ Link™

As synchronized signals are contained in 3D images that you view, you can build the 3D system without connecting the emitter.

- Configuration: 3D Contents + 3D Reproduction apparatus + 3D Glasses (DLP™ Link™ system)

IR system

3D SYNC OUT terminal (of PT-CW230/CX200) and the IR emitter are connected to build the 3D system.

- Configuration: 3D Contents + 3D Reproduction apparatus + 3D Glasses (IR system) + IR Emitter

[Viewing 3D images]

View 3D images at a distance at least three times further than the height of the screen. Each person views and feels the 3D images differently. In some cases, the effects may cause viewers to feel sick. If you see double 3D images or do not see stereoscopic images, you may feel fatigue or discomfort If you feel sick, immediately stop viewing 3D images. Children under the age of six should not view 3D images.

The DLP™ System Maintains Long-lasting, Stable Performance.

In the DLP™ system, the image quality does not degrade with time due to long life of the device. You can use the projector for various systems over a long period without worry of quality loss. *4

Superb Performance

High Brightness of 2,500 lm*5 and a 10 W High-output Speaker Meet Your Meeting/Seminar Room Needs.

High brightness of 2,500 lm*5 ensures bright and easy-to-see image projection. The volume level of the 10 W high-output speaker is enough for meeting rooms and classrooms; you do not need to use an external speaker. You can make multi-media presentations (including audio presentations).

Ensuring a 3,000-hour Lamp Replacement Cycle and a 4,000-hour Air Filter Replacement Cycle

A 3,000-hour*6 lamp replacement cycle and a 4,000-hour*7 air filter replacement cycle reduce the hassle and the cost of maintenance for a long time, minimizing environmental impact.

Quiet 28-dB*8 Design Does Not Interrupt Meetings or Classes

As the quiet design keeps noise levels down to 28-dB*8, the sound of the cooling fan is hardly noticeable. The audience can concentrate on the presentation and the screen images even during quiet scenes.

Extensive Interfaces with an HDMI Input Terminal

Extensive interfaces, including two sets of computer (RGB) input terminals (one set is switchable to output.) and an HDMI input terminal, allows a wide range of system configurations.

0.45 W Standby Power Consumption*9

When Standby mode is set to Eco, the standby power consumptions is as low as 0.45 W *9, reducing running cost and effects on the environment.

Convenient Functions

"Direct Power Off" Right after Use

The breaker in the room is directly turned off without operating the power switch of the ceiling-mounted projector. You can leave the room immediately after the meeting or the class.

Easy to Replace the Lamp and Air Filters

You can replace the lamp and the air filters from the top of the projector. There is no need to detach the projector from the ceiling bracket.

Wireless Remote Control is Convenient When Using More Than One Projector.

A maximum of two IDs can be set up, allowing individual remote control of each projector.

Eco-friendly

- No halogenated flame retardants are used in the cabinet.
- Lead-free glass is used for the lens.
- Low standby power of 0.45 W*9
- Switchable lamp mode

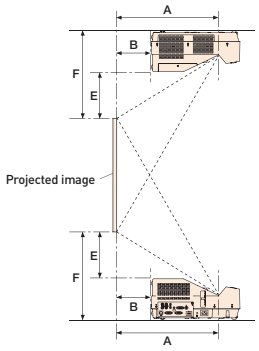
*1 Available for PT-CW230
*2 In this method, images for the right eye and the left eye are switched at a high speed.
*3 To view 3D images, active-shutter 3D glasses are separately required. (In the active shutter system, the right/left liquid crystal shutter is opened and closed alternately according to projected images.)
*4 Twenty-four-hour continuous operation is not available.
*5 PT-CX200 has brightness of 2,000 lm.
*6 This is the maximum value when the lamp power is set to Eco mode where the lamp is turned on for 2 hours and off for 0.25 hours. If the lamp is turned on more times or kept on for a long time, the lamp replacement cycle will shorten. In Normal mode, the lamp replacement cycle is 2,000 hours.The usage environment affects the duration of the lamp.
*7 With the lamp power set to Eco. The usage environment affects the duration of the filter.
*8 When the lamp power is set to Eco and fan control is set to Off.(Non-high altitude setting)
*9 Standby mode: Eco. When the Standby mode is set to Eco, network functions such as LAN Standby On do not work.

Specifications

Model		PT-CW230	PT-CX200
Power supply		100 – 240 V AC, 50/60 Hz	
Power consumption		350 W (0.45 W when STANDBY MODE set to ECO,*1 11.0 W when STANDBY MODE set to NETWORK.)	
DLP™ chip	Panel size	16.5 mm (0.65 inches) (16:10 aspect ratio)	14 mm (0.55 inches) (4:3 aspect ratio)
	Display method	DLP™ chip x 1	DLP™ system
	Pixels	1,024,000 (1,280 x 800) pixels	786,432 (1,024 x 768) pixels
Lens		Fixed/manual focus F = 2.5 f = 4.83 mm	
Lamp		275 W UHM lamp (The lamp replacement cycle is 3,000 hours*2)	
Screen size (diagonal)		1.52 – 2.79 m (60 – 110 inches) (16:10 aspect ratio)	1.40 – 2.29 m (55 - 90 inch) (4:3 aspect ratio)
Color reproducibility		Full color (16.77 million colors)	
Brightness*3		2500 lm	2000 lm
Center-to-corner uniformity*3		80%	
Contrast*3		2000:1 (full on/off)	
Resolution		1,280 × 800 pixels (Input signals that exceed this resolution will be converted to 1,280 × 800 pixels.)	1,024 × 768 pixels (Input signals that exceed this resolution will be converted to 1,024 × 768 pixels.)
Scanning frequency	HDMI	(Horizontal) 15–93 kHz; (Vertical) 50–120 Hz; (Dot clock) 150 MHz or lower	
	RGB (analog)	(Horizontal) 15–93 kHz; (Vertical) 50–120 Hz; (Dot clock) 150 MHz or lower (Signals exceeding the dot clock rate of 150MHz are downsampled.)	
	YPBPR (YCBCR)	fH: 15.75 kHz, fv: 60 Hz [480i(525i)] fH: 15.63 kHz, fv: 50 Hz [576i(625i)] fH: 31.50 kHz, fv: 60 Hz [480p(525p)] fH: 31.25 kHz, fv: 50 Hz [576p(625p)] fH: 45.00 kHz, fv: 60 Hz [720(750)/60p] fH: 37.50 kHz, fv: 50 Hz [720(750)/50p] fH: 33.75 kHz, fv: 60 Hz [1080(1125)/60i] fH: 28.13 kHz, fv: 50 Hz [1080(1125)/50i]	
	Video/S-Video	(fH) 15.75/15.63 kHz (fV) 50/60 Hz [NTSC/NTSC4.43/PAL/PAL60/PAL-N/PAL-M/SECAM]	
Keystone correction range		Vertical: ± 5°	
Installation		Ceiling/floor, front/rear (Menu setting)	
Built-in speaker		3.7 cm Round shape x1 output power 10 W (Monaural)	
Terminals	HDMI IN	(HDMI 19-pin) x 1 (compatible with HDCP) Audio signal Linear PCM (Sampling frequency: 48 kHz/44.1 kHz/32 kHz)	
	COMPUTER IN 1	D-sub HD 15-pin (female) x 1 [RGB/YPB(CB)/PR(CR) x 1]	
	COMPUTER IN 2 / MONITOR OUT	D-sub HD 15-pin (female) x 1 (RGB x 1) (input/output selectable using on-screen Menu) (When Monitor Out is selected, the COMPUTER IN 1 signal is output.)	
	VIDEO IN	RCA pin × 1	
	S-VIDEO IN	Mini DIN 4-pin × 1	
	COMPUTER AUDIO IN	M3 x 2 (L-R x 1)	
	AUDIO IN	RCA pin x 2 (L-R x 1) for VIDEO/S-VIDEO input	
	AUDIO OUT	M3 x 1 (L-R x 1)	
	SERIAL IN	D-sub 9-pin (female) × 1 for external control (RS-232C compliant)	
	LAN	(RJ-45) × 1 (for network connection, 100BASE-TX/10BASE-T, compliant with PJLink™ (class 1))	
	3D SYNC OUT	Mini DIN 3-pin x 1 (for 3D transmitter connection)	
Cord length		3.0 m (9'10")	
Cabinet materials		Molded plastic (PC)	
Dimensions (W × H × D)		321 x 178 x 386 mm (12-5/8" × 7" × 15-3/16") (with legs at shortest position)	
Weight		Approx.6.2 kg (13.7 lbs)*4	
Noise level		36 dB (Lamp power: Normal); 28 dB (Lamp power: Eco)	
Operating environment		Operating temperature: 0° – 40°C(32° – 104°F) (Less than 1000 m above sea level); 0° – 30°C(32° – 86°F) (1000 – 2700 m above sea level) Operating humidity: 20% - 80% (no condensation)	
Supplied accessories		Power cord x 1(x 2 for PT-CW230EA, PT-CX200EA), Power cord cover x 1, Wireless remote control unit x 1, Batteries (AAA type x 2) ,Computer cable (1.8 m, for VGA) x 1	

Projection distance

unit: meters (feet)



PT-CW230 (16:10 aspect ratio; throw ratio: 0.19:1)

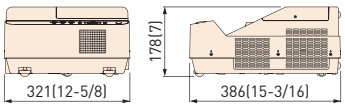
Diagonal image size	Distance from the edge of the projection window to the screen (A)	Distance from the projector front to the screen (B)	Height from the edge of the screen to the top of the projector (E)	Height from the edge of the screen to the bottom of the projector (F)
1.52 [60"]	0.23 (0.75')	-0.07 (-0.23')	0.05 (0.16')	0.23 (0.75')
1.78 [70"]	0.28 (0.92')	-0.02 (-0.07')	0.07 (0.23')	0.25 (0.82')
2.03 [80"]	0.32 (1.05')	0.02 (0.07')	0.09 (0.30')	0.27 (0.89')
2.29 [90"]	0.37 (1.21')	0.07 (0.23')	0.11 (0.36')	0.29 (0.95')
2.54 [100"]	0.41 (1.35')	0.11 (0.36')	0.13 (0.43')	0.31 (1.02')
2.79 [110"]	0.46 (1.51')	0.16 (0.52')	0.15 (0.49')	0.33 (1.08')

PT-CX200 (4:3 aspect ratio; throw ratio: 0.24:1)

Diagonal image size	Distance from the edge of the projection window to the screen (A)	Distance from the projector front to the screen (B)	Height from the edge of the screen to the top of the projector (E)	Height from the edge of the screen to the bottom of the projector (F)
1.40 [55"]	0.25 (0.82')	-0.05 (-0.16')	0.07 (0.23')	0.25 (0.82')
1.52 [60"]	0.28 (0.92')	-0.02 (-0.07')	0.09 (0.30')	0.27 (0.89')
1.78 [70"]	0.33 (1.08')	0.04 (0.13')	0.11 (0.36')	0.29 (0.95')
2.03 [80"]	0.38 (1.25')	0.09 (0.30')	0.14 (0.46')	0.32 (1.05')
2.29 [90"]	0.44 (1.44')	0.14 (0.46')	0.17 (0.56')	0.35 (1.15')

Dimensions

unit: mm (inch)



Optional accessories

Ceiling mount bracket for high ceilings*5
ET-PKV100H

Ceiling mount bracket for low ceilings*5
ET-PKV100S

Bracket assembly
ET-PKC100B

Wall mount bracket
ET-PKC100W

Replacement lamp unit
ET-LAC100

Replacement filter unit
ET-RFC100

*1 When Standby mode is set to Eco, network functions such as standby on via LAN are not available. Only certain commands can be received for external control using the serial terminal.
*2 This is the maximum value when the lamp power is set to Eco mode where the lamp is turned on for 2 hours and off for 0.25 hours. If the lamp is turned on more times or kept on for a long time, the lamp replacement cycle will shorten. In Normal mode, the lamp replacement cycle is 2,000 hours. The usage environment affects the duration of the lamp.
*3 Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards.
*4 The above values are averages. Actual values may be different according to the product.
*5 This product is used together with an optional bracket assembly (sold separately).

Caution

Do not install the projector in locations that are subject to excessive water, humidity, steam or oily smoke. Doing so may result in fire, malfunction or electric shock.

NOTE ON USE

1 The projector uses a high-voltage mercury lamp under high internal pressure. This lamp may break, emitting a popping sound, or fail to illuminate, due to impact or extended use.
2 The high-wattage lamp becomes very hot during operation. Please observe the following precautions:
- Never place objects on top of the projector while it is in operation.
- Make sure there is an unobstructed space of 500 mm (19-11/16 in) or more around the projector's exhaust openings.
- If stacking projector units, care must be taken to provide the recommended space between units. These space requirements also apply to installation where only one projector unit is operating at one time and the other unit is used as a backup.
- If the projector is placed in a box or enclosure, the temperature of the air surrounding the projector must match the operating temperature listed in the specifications table during use. Also, make sure the projector's intake and exhaust openings are not blocked. Ensure there is sufficient ventilation to prevent hot air from the exhaust openings being recirculated into the intake opening.

3 The lamp replacement cycle duration becomes shorter if the projector is operated repeatedly for short periods.
- The lamp replacement cycle varies greatly depending on individual lamp characteristics and usage conditions.
- The brightness of the lamp will gradually decrease with use.

4 Due to natural characteristics of lamps, screen brightness may fluctuate. This is not an indication of faulty lamp performance.

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For more information about Panasonic projectors
http://panasonic.net/avc/projector

Weights and dimensions shown are approximate. Specifications and appearance are subject to change without notice.
Product availability differs depending on region and country. This product may be subject to export control regulations.
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